

OIFE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/880,457

DATE: 06/28/2001

TIME: 14:48:08

Input Set : A:\P2871R1.txt

Output Set: N:\CRF3\06282001\I880457.raw

3 <110> APPLICANT: Pan, James
 4 Goddard, Audrey
 5 Wood, William I.
 7 <120> TITLE OF INVENTION: NS4 Nucleic Acids and Polypeptides and Methods of Use
 8 for the Treatment of Body Weight Disorders
 10 <130> FILE REFERENCE: P2871R1
 W--> 12 <140> CURRENT APPLICATION NUMBER: US/09/880,457
 12 <141> CURRENT FILING DATE: 2001-06-12
 14 <150> PRIOR APPLICATION NUMBER: US 60/212,901
 15 <151> PRIOR FILING DATE: 2000-06-20
 17 <160> NUMBER OF SEQ ID NOS: 9
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 1161
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Homo sapiens
 24 <400> SEQUENCE: 1
 25 aaaagaggat aattcaagaa gggcttcttt aagggactat ttccaagat 50
 27 gggaatggag gggaacctgc agggctagtgc tcctaccctc cagcaggcag 100
 29 cagctaattc ctgaggggat aaggacgtgg ttgcgaggac atggaggga 150
 31 agttctacag aggaggcaca gtgggcttca ggaacacct gcttgagagg 200
 33 cctgtgagag gtggggaatc aatacctgac ctgctctcc ttccatctct 250
 35 cccaaccca caggggttgg tgtgggcccc acaggcgagc ctcccgggga 300
 37 gagaagtgga gagaggacct ggagggccag tagaaggat gcacacaagt 350
 39 atctacaagg caccaggcat tttttgagca tttgggattt gtcagcaaac 400
 41 aagtcagaca aaaaaccttg ctctggtgga gggaacattc tagcaaagga 450
 43 aggcaaatga caagcaggag aagtatttgc taagaatggc aatcctgacg 500
 45 ctgagccttc aactcatctt gttattaata ccatcaatat cccatgaggc 550
 47 tcataaaacg agtctttctt cttggaaaca tgaccaagat tgggcaaacg 600
 49 tctccaacat gactttcagc aacggaaaac taagagtcaa aggcatttat 650
 51 taccggaatg ccgacatttg ctctcgacat cgcgtaacct cagcaggcct 700
 53 aactctgcag gaccttcagc tatggtgtaa tttgagaatc attcactgag 750
 55 catcaactat gtaaccagca ttgggttggg tgccagagat ccaaagctaa 800
 57 gacaccaaaa cctgctctcc aggaacagag aggctgagaa gagggccagc 850
 59 aggtgtctgt cagtacttgg agccgtgaga gcagggagtg ggtgctgggc 900
 61 tgaggaacca gaggtaatgg ccctggggac gcccggaag agatgagttt 950
 63 tgaggcaaag ggatttgcac ttgtggatga acttggtgtg tcagctgaag 1000
 65 gctgaagttg taactctgaa ccacaggaca aagcatgatg tgatgtcttc 1050
 67 ctactaaat ggcaatgtcc ttgagaagac cctgtcttaa tcctctctgt 1100
 69 gtctcagccc tggctcataa catatgctta tcgcatgctt ttaataaaa 1150
 71 gaggaataatg c 1161
 73 <210> SEQ ID NO: 2
 74 <211> LENGTH: 2412
 75 <212> TYPE: DNA
 76 <213> ORGANISM: Homo sapiens
 78 <400> SEQUENCE: 2
 79 ggtggagcca aataaggga tgaaagcagg ccaccggagc ctcgagagg 50
 81 caaccgtttg ggtactctt ccacactgtg gcagctttgt tcttttctc 100

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/880,457

DATE: 06/28/2001

TIME: 14:48:08

Input Set : A:\P2871R1.txt

Output Set: N:\CRF3\06282001\I880457.raw

```

83 tttgcagtaa gttttgctgt tgcttactct ttgggtctgc actgccttta 150
85 tgaactgtaa cactgaccat ggaggtctgc agcttcactc ctcaagccag 200
87 caagaccagg agcccactgg gaggaggaat gaacaactct ggacacgcca 250
89 cccttaagag ctgtaacact caccgcgacg gtctgcagct tcaactcctga 300
91 agtcagcgag accacaaacc caccagaagg aagaaaatcc ggacacatct 350
93 gaacatctga gggaaactccg cacacaccat cttaaagaac tgtaacactc 400
95 accacgaggg cccgtggctt cattcttgaa gtcagcaaga ccaagaaccc 450
97 accaattctg gacacaacag gacacacaca tgggaggggg aggccagagg 500
99 gaaacctagc tggcttgggg tgggaatttg aatccctgag cccatcttct 550
101 tctttcacca ctttgtccgg tgacattagg accaaccaac caatgccatt 600
103 atattttctta gtttacaaga aaatgtttga agttctcatc cacagaatca 650
105 cttagcttct tgctttttac aagtgggtga ttaggagtat tcaatacaga 700
107 ttttgtgtat cactataaac agttcacagc atggactact ggtgttctct 750
109 ttactaactg aaatgggtgc attagcacct ttaaactctaa tccatttaga 800
111 gagccagttc cggaaacctc agaaccagtt tggaaaactt ccgttcttct 850
113 gaagccattt ttggaaccac atctgtgcta ggttctccag ggaaacagaa 900
115 ccaatatgtt ttatttacta tggggactgg ctcatatgat tctggaggcc 950
117 tagaagtecc tccctctcaa gatgtgctgt cagcaagctg cagaaccagg 1000
119 aaagctggtg gtgtcagagt ctgaaggcct gagaactggg tggggagtg 1050
121 gacagactaa ggggccttta gtctctgggt tgggtgtggtc cccacagggt 1100
123 agcctttcgt ggagaagggt ggagagggga tctggaaggg ccaatagaag 1150
125 atactcagca ctaagagacc tttggactca gaccagaact tacaccattc 1200
127 attcattcag tcggtgaaaa tgtattgacc actgtatcaa ccaggattgt 1250
129 gacacaaaaa cagatggcac actcaaaaga ggataattca agaaggcctt 1300
131 cttaaaggga ctatttccca agatgggaat ggaggggaac ctgcagggtc 1350
133 agtgtectac cctccagcag gcagcagcta attcctgagg ggataaggac 1400
135 gtggttgcca ggacatggag ggaagtctct acagaggagg cacagtgggc 1450
137 ttcaggaaca ccctgcttga gaggcctgtg agagggattg ttttctactg 1500
139 tttgacattc acgtaacctc ctaacgctgt ctggggaaga tgcatacccc 1550
141 tgctctcccc gtctttcctg cactctcagc aatgggatgg gctgactgat 1600
143 gccctgtggg ctggaaagct gaccacagtt gctgcagacc agacccccctc 1650
145 acatagtgag tgctgggctg aggaatccag gagagcccga ggggggacac 1700
147 tgaaggtgta tcgttggccc tgccagctgc aagtgaactg cttctgatga 1750
149 attttaatat ggagaaagaa gtatttgcta agaattggca tcttgatgct 1800
151 cagcettcaa ctcatcttgt tattaatacc atcaatatcc catgaggctc 1850
153 ataaaacgag tctttcttct tggaaacatg accaagattg ggcaaacgtc 1900
155 tccaacatga ctttcagcaa cggaaaacta agagtcaaag gcatttatta 1950
157 ccggaatgcc gacatttgct ctgcacactg cgtaacctca gcaggcctaa 2000
159 ctctgcagga ctttcagcta tgggtgaatt tgaggtcagt ggccagagga 2050
161 cagatcccgct ctacattatg agtgaagcgg agagctactg cagggttctg 2100
163 agcagagtcc taatttatat tttagaagaa tcatcatggc tcctagatta 2150
165 ggaataaaac gaaggggccc agggatggaa acgatgagtc cagttgggtt 2200
167 actgcaaaga tccaggccag aaatccaggc acagtggcac acacctgagt 2250
169 cccagataat tccacctact ggtcctgctc tgtggcctac tgggtccgagt 2300
171 ccagccccga ctgatttctg ggcctgtaat gtctaaaaac gtcctctgct 2350
173 gatgttttgc aagtgactgt gttacttgaa ggcagttcct aggataaact 2400
175 agtcgcttta tc 2412
177 <210> SEQ ID NO: 3
178 <211> LENGTH: 1186

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/880,457

DATE: 06/28/2001

TIME: 14:48:08

Input Set : A:\P2871R1.txt

Output Set: N:\CRF3\06282001\I880457.raw

```

179 <212> TYPE: DNA
180 <213> ORGANISM: Homo sapiens
182 <400> SEQUENCE: 3
183 aaaaaataca gcaggtgaag gaggttggag agtagggggg ggagggccca 50
185 cgcagcactt gtccttcacc ctggagggga tctgttacat gccccagatt 100
187 gctggtcccc tagaaatgtt actgaggcag cctctgcatt tttgcaggga 150
189 ttgttttcta ctgtttgaca ttcacgtaac ctctaacgc tgtctgggga 200
191 agatgctacc cctgctctc cccgtcttct ctgcactctc agcaatggga 250
193 tgggctgact gatgccctgt gggctggaaa gctgaccaca gttgctgcag 300
195 accagacccc ctacatagt gagtgctggg ctgaggaatc caggagagcc 350
197 cgagggggga cactgaagg gtatcgttgg cctgccagc tgcaagtga 400
199 ctgcttctga tgaattttta tagggagaaa gaagtatttg ctaagaatgg 450
201 caatcctgac gctcagcctt caactcatct tgttattaat accatcaata 500
203 tcccatgagg ctcataaaac gagtctttct tcttgaaaac atgaccaaga 550
205 ttgggcaaac gtctccaaca tgactttcag caacggaaaa ctaagagtca 600
207 aaggcattta ttaccggaat gccgacattt gctctcgaca tcgcgtaacc 650
209 tcagcaggcc taactctgca ggaccttcag ctatggtgta attgaggtc 700
211 agtggccaga ggacagatcc cgtctacatt atgagtgaag cggagagcta 750
213 ctgcagggtt ctgagcagag tctaatttta tatttttaga gaatcatcat 800
215 ggtccttaga ttaggaataa aacgaagggg cccagggatg gaaacgatga 850
217 gtccagttgg gttactgcaa agatccaggc cagaaatcca ggcacagtgg 900
219 cacacacctg agtcccagat aattccacct actggtcctg ctctgtggcc 950
221 tactggtccg agtccagccc cgactgattt ctgggcctgt aatgtctaaa 1000
223 aacgtccctt gctgatgttt tgcaagtga tgtgttactt gaaggcagtt 1050
225 cctaggataa actagtcgct ttatcattac agaatcattc actgagcatc 1100
227 aactatgtaa ccagcattgg gttgggtgcc agagatccaa agctaagaca 1150
229 ccaaacctg ctctccagga aacgagaggc tgagaa 1186
231 <210> SEQ ID NO: 4
232 <211> LENGTH: 87
233 <212> TYPE: PRT
234 <213> ORGANISM: Homo sapiens
236 <400> SEQUENCE: 4
237 Met Ala Ile Leu Thr Leu Ser Leu Gln Leu Ile Leu Leu Leu Ile
238 1 5 10 15
240 Pro Ser Ile Ser His Glu Ala His Lys Thr Ser Leu Ser Ser Trp
241 20 25 30
243 Lys His Asp Gln Asp Trp Ala Asn Val Ser Asn Met Thr Phe Ser
244 35 40 45
246 Asn Gly Lys Leu Arg Val Lys Gly Ile Tyr Tyr Arg Asn Ala Asp
247 50 55 60
249 Ile Cys Ser Arg His Arg Val Thr Ser Ala Gly Leu Thr Leu Gln
250 65 70 75
252 Asp Leu Gln Leu Trp Cys Asn Leu Arg Ile Ile His
253 80 85
255 <210> SEQ ID NO: 5
256 <211> LENGTH: 94
257 <212> TYPE: PRT
258 <213> ORGANISM: Homo sapiens
260 <400> SEQUENCE: 5

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/880,457

DATE: 06/28/2001

TIME: 14:48:08

Input Set : A:\P2871R1.txt

Output Set: N:\CRF3\06282001\I880457.raw

```

261 Met Ala Ile Leu Met Leu Ser Leu Gln Leu Ile Leu Leu Ile
262   1           5           10           15
264 Pro Ser Ile Ser His Glu Ala His Lys Thr Ser Leu Ser Ser Trp
265           20           25           30
267 Lys His Asp Gln Asp Trp Ala Asn Val Ser Asn Met Thr Phe Ser
268           35           40           45
270 Asn Gly Lys Leu Arg Val Lys Gly Ile Tyr Tyr Arg Asn Ala Asp
271           50           55           60
273 Ile Cys Ser Arg His Arg Val Thr Ser Ala Gly Leu Thr Leu Gln
274           65           70           75
276 Asp Leu Gln Leu Trp Cys Asn Leu Arg Ser Val Ala Arg Gly Gln
277           80           85           90
279 Ile Pro Ser Thr
282 <210> SEQ ID NO: 6
283 <211> LENGTH: 95
284 <212> TYPE: PRT
285 <213> ORGANISM: Homo sapiens
287 <400> SEQUENCE: 6
288 Met Ala Ile Leu Thr Leu Ser Leu Gln Leu Ile Leu Leu Ile
289   1           5           10           15
291 Pro Ser Ile Ser His Glu Ala His Lys Thr Ser Leu Ser Ser Trp
292           20           25           30
294 Lys His Asp Gln Asp Trp Ala Asn Val Ser Asn Met Thr Phe Ser
295           35           40           45
297 Asn Gly Lys Leu Arg Val Lys Gly Ile Tyr Tyr Arg Asn Ala Asp
298           50           55           60
300 Ile Cys Ser Arg His Arg Val Thr Ser Ala Gly Leu Thr Leu Gln
301           65           70           75
303 Asp Leu Gln Leu Trp Cys Asn Leu Arg Ser Val Ala Arg Gly Gln
304           80           85           90
306 Ile Pro Ser Thr Leu
307           95
309 <210> SEQ ID NO: 7
310 <211> LENGTH: 27
311 <212> TYPE: DNA
312 <213> ORGANISM: Artificial Sequence
314 <220> FEATURE:
315 <223> OTHER INFORMATION: Cloning oligonucleotide
317 <400> SEQUENCE: 7
318 gattgggcaa acgtctccaa catgact 27
320 <210> SEQ ID NO: 8
321 <211> LENGTH: 30
322 <212> TYPE: DNA
323 <213> ORGANISM: Artificial Sequence
325 <220> FEATURE:
326 <223> OTHER INFORMATION: Cloning oligonucleotide
328 <400> SEQUENCE: 8
329 ttggtcatgt ttccaagaag aaagactcgt 30
331 <210> SEQ ID NO: 9

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/880,457

DATE: 06/28/2001

TIME: 14:48:08

Input Set : A:\P2871R1.txt

Output Set: N:\CRF3\06282001\I880457.raw

332 <211> LENGTH: 61
333 <212> TYPE: DNA
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: Cloning oligonucleotide
339 <400> SEQUENCE: 9
340 cagcaacgga aaactaagag tcaaaggcat ttattaccgg aatgccgaca 50
342 ttgctctcg a 61

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/880,457

DATE: 06/28/2001

TIME: 14:48:09

Input Set : A:\P2871R1.txt

Output Set: N:\CRF3\06282001\I880457.raw

L:12 M:282 W: Numeric Field Identifier Missing, <140> CURRENT APPLICATION NUMBER: is Added.